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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FELIX SORKIN

Application 15/212,629 Technology Center 3600

Before DANIEL S. SONG, BRANDON J. WARNER, and PAUL J. KORNICZKY, *Administrative Patent Judges*.

KORNICZKY, Administrative Patent Judge.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 1–7, 10–17, and 20–24. Non-Final Act.

1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

The claims are directed to a compact anchor for a post-tensioned concrete segment. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An anchor assembly for a post-tensioned concrete segment comprising:

a compact anchor, the compact anchor including a wedge extension having a frustoconical inner surface, the frustoconical inner surface having an inner diameter, the compact anchor formed from steel having no lead; and

a compact wedge, the compact wedge formed from steel having no lead.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Howlett	US 3,935,685	Feb. 3, 1976
Sorkin	US 6,761,002 B1	July 13, 2004
Hayes	US 2006/0096196 A1	May 11, 2006

¹ In this Decision, we refer to (1) the Examiner's Non-Final Office Action dated June 27, 2017 ("Non-Final Act.") and Answer dated February 5, 2018 ("Ans."), and (2) Appellant's Appeal Brief dated September 22, 2017 ("Appeal Br.").

² We use the term "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Felix Sorkin. Appeal Br. 4.

REJECTIONS

- 1. Claims 1–6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hayes and Howlett. Non-Final Act. 2.
- 2. Claims 7, 10–17, and 20–24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hayes, Howlett, and Sorkin. Non-Final Act. 5.

OPINION

Rejection 1: Claims 1–6 as Unpatentable over Hayes and Howlett Claims 1, 4, 5, 6

Appellant argues claims 1, 4, 5, and 6 as a group. Appeal Br. 8–11. We select independent claim 1 as the representative claim, and claims 4, 5, and 6 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv). Claims 2 and 3 are discussed separately below.

The Examiner finds that Hayes discloses all of the limitations of claim 1 except for an anchor and wedge which are formed from "steel having no lead." Non-Final Act. 2–3. For this missing limitation, the Examiner finds that Howlett discloses an anchor (i.e., anchor member 21) and wedge 49. *Id.* at 3 (citing Howlett, 1:49–57, Figs. 1–2). The Examiner finds that Howlett discloses the anchor member may be formed from (1) C1040 (composed of iron, manganese, carbon, sulfur and phosphorus), or (2) or A36 (composed of iron, carbon and manganese). *Id.* The Examiner reasons it would have been obvious to one of ordinary skill in the art "to modify the anchor assembly comprising the anchor and wedge(s) of [Hayes] to be made of a steel material having no lead such as taught by [Howlett] in order to provide a known material for use with a compact anchor and compact wedge(s) that is strong and durable." *Id.*

Appellant argues that the Examiner's rejection is erroneous for several reasons. First, Appellant argues that because Hayes' anchor body is formed from a single cast part, whereas Howlett's assembly anchor has an anchor plate and separate conduit of different hardnesses, one of ordinary skill the art would not modify Hayes' cast anchor body having a single hardness with Howlett's anchor (i.e., bearing plate and conduit) which has different hardnesses. Appeal Br. 8–9. Second, Appellant argues that Hayes' cast anchor "is formed from a single cast metal structure that already includes a load-bearing basal surface positioned to contact the concrete structure for post-tension reinforcement," and that "[a]dding a bearing plate would prevent *Hayes* from operating as designed." *Id.* at 9.

Appellant's arguments are not persuasive. The Examiner finds that Hayes discloses all of the limitations of claim 1 except for lead-free steel, and relies on Howlett solely to teach an anchor comprising lead-free steel. Non-Final Act. 2–3 (citing Howlett, 8:61–68); Ans. 3. Contrary to Appellant's arguments, the Examiner does not propose modifying Hayes' assembly to use Howlett's bearing plate. Appellant does not address the rejection as articulated by the Examiner, and, thus, does not show error by the Examiner.

Third, Appellant argues that the Examiner's reasoning "for combining Hayes and Howlett, namely that steel having no lead is strong and durable, is not supported by the disclosure of either Hayes or Howlett." Appeal Br. 10. Appellant's argument that the Examiner's articulated reasoning is not found explicitly in the references themselves is not an adequate basis for reversal. See KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 419 (2007) (holding that when the teaching-suggestion-motivation test is applied as a rigid and

mandatory formula, it is incompatible with the Court's precedent). Here, we disagree with Appellant's argument that the Examiner has not made explicit the reason Hayes and Howlett can be combined. The Examiner sufficiently reasons that Hayes discloses that it is known in the art to form an anchor out of iron or similar cast materials, that the anchor and wedge segments may be made of any type known in the art, and that Howlett's steel material is well known to be an alloy of iron, which is inherently stronger than iron alone. Ans. 4 (citing Hayes ¶¶ 32, 51). Thus, in view of the record before us, the Examiner's articulated reasoning has rational underpinnings.

For the reasons above, the Examiner's rejection of independent claim 1 is sustained. Claims 4, 5, and 6 fall with claim 1.

Claims 2 and 3

Claims 2 and 3 recite that the compact anchor and compact wedge "is formed by cold heading," respectively.

The Examiner finds that claims 2 and 3 are each directed to the product of the anchor assembly rather than to a method. Ans. 4; Non-Final Act. 4, 14. The Examiner states:

[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP § 2113.

Ans. 4; Non-Final Act. 14. The Examiner reasons that one of ordinary skill in the art would recognize that

cold heading is one of finite number of techniques for forming metal anchor assemblies such as described in the rejection of claims 20–21 directed to a method of cold heading. Applicant has not disclosed unexpected results or characteristics in cold heading an anchor assembly. In the rejection of claims 20–21, Examiner stated that cold forging allows for the forming of parts that require little finishing and is less intensive to produce. Examiner recognizes that there are pros and cons when comparing cold heading vs casting, however, there appears to be no new or unexpected results in forming the anchor from cold heading. Examiner submits that the end product formed by cold heading vs casting (after finishing) would be expected to perform in a similar manner.

Ans. 5. In connection with the rejections of claims 20–21 (which have the same limitations, albeit in the context of a method), the Examiner states "[t]o substitute one known method for another would been an obvious matter of design choice to one of ordinary skill in the art before the effective filing date of the claimed invention." Non-Final Act. 15.

Appellant argues that the Examiner's rejection is erroneous because, even if dependent claims 2 and 3 are product-by-process claims, the Examiner has failed to properly construe the structure implied by the alleged process limitation "wherein the compact anchor is formed by cold heading." Appeal Br. 11. Applicant submits that the products-by-process of claims 2 and 3 are "patentably distinct from what was known in the art. *Hayes* teaches a cast anchor body and *Howlett* relies on the difference in the relative malleabilities (or, conversely, relatively hardnesses) of the plate and the conduit to form a functional anchor." *Id.* Appellant argues:

The material from which anchor plate 22 of *Howlett* is formed is not substitutable into the teachings of Hayes. Steel cannot be used to make a cast part without first being melted. Sorkin Declaration, ¶¶ 4, 8, and 9. If melted, a piece of rolled steel cannot fairly be referred to as "rolled steel" or as "roll-formed material" as rolling refers only to the method of manufacture of the steel part or material. Sorkin Declaration, ¶9. A part or material cannot be both cast and rolled or roll-formed as these methods of manufacture are mutually exclusive. inclusion of a relatively hard anchor plate combined with a relatively malleable conduit is not possible in a single cast metal structure. Because it is formed from a single cast metal structure, no part of the anchor taught by Hayes can be formed in the manner taught by *Howlett*. For at least these reasons, one having ordinary skill in the art would not combine the teachings of Howlett with the cast anchor of Hayes, nor would one use the dual materials of *Howlett* in the cast anchor of *Hayes*.

Id. at 12.

Appellant's arguments are not persuasive because Appellant does not address the rejection as articulated by the Examiner. Appellant does not address the Examiner's conclusion that "one of ordinary skill in the art would recognize that cold heading is one of finite number of techniques for forming metal anchor assemblies." Ans. 5; Non-Final Act. 14–15; KSR, 550 U.S. 398 at 417, 422 (stating that "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill" and a "person of ordinary skill is also a person of ordinary creativity, not an automaton"). The Examiner states that "cold forging allows for the forming of parts that require little finishing and is less intensive to produce," that "there are pros and cons when comparing cold heading [versus] casting," that "there appears

to be no new or unexpected results in forming the anchor from cold heading" and "the end product formed by cold heading vs casting (after finishing) would be expected to perform in a similar manner." Ans. 5; Non-Final Act. 15. Further, Appellant has not disclosed any unexpected results or structural characteristics from cold heading an anchor assembly that would patentably distinguish a compact anchor and a compact wedge formed by known cold heading from those formed using other known techniques.

For the reasons above, the rejection of claims 2 and 3 is sustained.

Rejection 2: Claims 7, 10–17, and 20–24 as Unpatentable over Hayes, Howlett, and Sorkin

Claims 7 and 15

Appellant argues that the Examiner's rejection of independent claims 7 and 15 is erroneous for the same reasons presented above in connection with claim 1. Appeal Br. 13. As discussed in Rejection 1, Appellant's arguments are not persuasive and, thus, the rejection of claims 7 and 15 is sustained.

Claims 10, 11, 20, and 21

Appellant argues that the Examiner's rejection of claims 10, 11, 20, and 21 is erroneous for the same reasons presented above in connection with claims 2 and 3. Appeal Br. 13. As discussed in Rejection 1, Appellant's arguments are not persuasive and, thus, the rejection of claims 10, 11, 20, and 21 is sustained.

Claims 12–17, 22, 23, and 24

Because Appellant does not address the Examiner's rejection of claims 12–17, 22, 23, and 24, the rejection of these claims is sustained.

CONCLUSION

The Examiner's rejection of claims 1–6 as being unpatentable over Hayes and Howlett is AFFIRMED.

The Examiner's rejection of claims 7, 10–17, and 20–24 as being unpatentable over Hayes, Howlett, and Sorkin is AFFIRMED.

DECISION SUMMARY

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
Rejected				
1–6	103	Hayes, Howlett	1–6	
7, 10–17,	103	Hayes, Howlett,	7, 10–17,	
20–24		Sorkin	20–24	
Overall			1–7, 10–17,	
Outcome			20–24	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

<u>AFFIRMED</u>